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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/650,370	08/28/2003	Stefan Scherer	2001DE313/D	7329

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CLARIANT CORPORATION  
INTELLECTUAL PROPERTY DEPARTMENT  
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CHARLOTTE, NC 28205

EXAMINER

VOLLANO, JEAN F

ART UNIT PAPER NUMBER

1621

DATE MAILED: 02/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b> 10/650,370	<b>Applicant(s)</b> SCHERER ET AL.	
	<b>Examiner</b> Jean F. Vollano	<b>Art Unit</b> 1621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 8-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 8-14 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 10/236,749.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |  |
|---|--|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____  |

## DETAILED ACTION

### *Election/Restrictions*

Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 8, drawn to a borane compound of formula (Ia) (it is noted that there is no (I a) structure in the claim or the specification. The structure is named but the compound could not be generated from the name in CHEM DRAW, classified in class 568, subclass various. If this group is chosen please give an informal drawing of the structure so that it can properly be searched.

II. Claim 9, drawn to a compound of formula (I) this in a product by process format and the compounds are being claimed and not the process so if this group is chosen, Applicant must give the metes and bounds of the compounds being claimed, classified in class depends on the compounds being claimed boranes with no substituents is class 568, subclass various. It is noted that if the compound of claim 8 is really a subset of this claim without the product by process format then they could be rejoined into one group. However as it is written now group I is not part of Group II.

III. Claim 10, drawn to a Suzuki coupling reaction product. Again this is in a product by process format. The product does not need to contain boron and it would be impossible to determine all the compounds that can be made by a Suzuki coupling reaction, classified in class various, subclass various. If this group is chosen then the claim should be rewritten in a format to give the structures of the compounds being claimed.

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IV. Claims 11-13 ( in part), drawn to a process for preparing boronic acids by a reaction that reacts the formed borane with an alkene group to form the alkylbis(allyl)borane (III) which is then oxidized with formaldehyde or glyoxal ( which forms formaldehyde in solution) to form the corresponding bisallyl alkylboronate. The examiner notes that this product is not an a boronic acid. If this group is chosen then the boronic acid formation step must be include since the process is forming the boronic acid as the preparation states and the process ends before the acid is formed , the substituents cannot be heteroaryl groups. This is classified as a non heterocyclic system, classified in class 562, 558, 568, subclass various. Also depending on the substituents the classes could also include 564, 562- sulfonic acid section, 560 among others depending on the substituent . Therefore if this group is chosen a species must be elected as a starting place for the search.

V. Claim 11-13 ( in part) is the same process found in Group IV except that there is at least one heterocyclic group formed. Classified in class 546, 548, 549, 544 various subclasses depending on the heteroring. If this group is chosen then a species must be elected for the start of the search.

VI. Claim 11-13 ( in part) the same process as found in IV except that the oxidant is acetone or diacetyl. There are no heterocyclic groups found as a substituent classified in class 558, 568, 562, subclass various. Again the substituents will place it in various other groups including 560, 564, 562 for sulfonic acids etc. Therefore a species must be elected as a beginning part for the search.

VII. Claim 11-13 ( in part) the same process as Group VI except that there is a heterocyclic ring present in the compound and the classes could also include 546, 544, 540, 548 and 549

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depending on the substituents . Again if this group is chosen a species must be elected for the search.

Groups VIII-XI which are claims 11-13(in part) are the same as Groups IV-VII except that the alkenylbis(allyl)borane formed and the reagent is (IV) not (II). The classes would be the same and a species is required for all these groups.

XII. Claim 14, drawn to Suzuki C-C coupling reaction products again this is written in a product by process format and the process is not required as part of the product, classified in class various depending on the product formed, subclass various.

The inventions are distinct, each from the other because of the following reasons:

Group I is one compound claimed as (I a). Group II is drawn to a series of compounds. However the compounds are bis(allyl) boranes are being written in a product by process format. The examiner notes the following from MPEP 2113 in relation to the product by process format :

“>PRODUCT - BY - PROCESS CLAIMS ARE NOT LIMITED TO THE MANIPULATIONS OF THE RECITED STEPS, ONLY THE STRUCTURE IMPLIED BY THE STEPS

"Even though product - by process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product - by - process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process."

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The examiner notes that if the compounds of Group II are the compounds of formula I without the product by process format this should be clearly stated. If this is the case and the structure of Group I is a subset of the compounds claimed in Group II they will be searched together. However as of now the structure of Group I is not known and when a structure is given to the examiner the Grouping will be reevaluated.

Group III is drawn to a product again formed in a product by process format. This Group is drawn to any product that can be formed in a Suzuki coupling reaction. The product is again written in a product by process format and any product would fit this limitation of a product. There may also be an enablement problem or written description problem with this group since it seems to be claiming thousands of compounds. There does not have to be a boron in the product and therefore it is not the same compounds being claimed as in Group I or II.

Groups IV-VII are drawn to various processes for preparing various boronic acids. However it is unclear how the boronic acid is made since there is no step for the final product to be formed. The starting boranes are different ( depending on the substituents) the final product acids are different and the oxidants are different. If one found a 102(b) rejection over Group IV it would not obviate a rejection over Groups V , VI or VII.

Groups VIII-XI are drawn to a process which makes totally different products than Groups IV-VII since they make an alkenyl product rather than an alkyl product. Also Groups VIII-XI, within themselves, make different products starting with different starting materials and different oxidants. Again if a 102(b) found on Group VIII would not obviate a rejection over groups IX, X or XI. They are patentably distinct.

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Group XIII is drawn to a compound claim wherein the product is a C-C coupled product. This includes thousands of groups and may not be enabled to any extent or may have a written description problem.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

A telephone call was made to Mr Anthony Bisulca on February 17, 2004 to the above restriction requirement, but did not result in an election being made.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

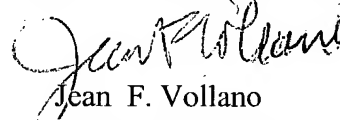
Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean F. Vollano whose telephone number is 571-2720648. The examiner can normally be reached on Monday-Thursday 6:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann Richter can be reached on 571-272- 0646. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Jean F. Vollano  
Primary Examiner  
Art Unit 1621

February 17, 2004